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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,480

06/01/2006

Michael Vogel

76175/RSM

3890

23432 7590 03/18/2009
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EXAMINER

RATCLIFFE, LUKE D

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

03/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,480	Applicant(s) VOGEL, MICHAEL	
	Examiner Luke D. Ratcliffe	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-27 is/are allowed.
- 6) ☒ Claim(s) 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Vogel (6873407).

Referring to claims 28 and 30, Vogel shows a surveying instrument with a computer program that includes an image sensor (column 2-3), wherein imaging of an object point by the camera on the image sensor can be modeled by use of a camera model having a protection center (figure 5 and column 2-3), A display for displaying image based on image captured by the image sensor (column 8), controlling the display to display a mark indicating the sighting axis the sighting axis being defined by the projection center and the intersection point or point of closest approach of the tilting axis and the vertical axis (figures 2-5 and column 7-8).

Claims 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang “Calibration of the Wild P32 Camera using the Camera-ON-Theodolite method”.

Referring to claims 28 and 29, Huang shows a surveying instrument having a camera with an image sensor (introduction and figure 1), wherein imaging of an object point by the camera on the image sensor can be modeled by use of a camera model having a projection center (figure 2), a display for displaying image based on image captured by the image sensor (figure 2), controlling the display to display a mark indicating the sighting axis the sighting axis being defined by the projection center and the intersection point or point of closest approach of the tilting axis and the vertical axis (pages 100-103).

Allowable Subject Matter

Claims 1-27 are allowed.

Response to Arguments

Applicant's arguments filed 11/17/08 have been fully considered but they are not persuasive.

Referring to the arguments that Vogel does not show a projection center for the camera model that is different from the intersection point such that a sighting axis can be defined, the Vogel patent does disclose that the projection center is at the intersection point of the instrument axes however Vogel does also disclose that the projection center can be close to the intersection point which is not at the intersection point of the instrument axes. The examiner would also like to point to claim 28, the claim does not include the statement that the optical axes are eccentric. In fact the claim clearly states that "the sighting axis being defined by the projection center and the intersection point or points of closest approach of the tilting axis and the vertical axis".

This statement appears to define the sighting axis of a projection center for the camera model that is the same as the intersection point of the machine axes.

Referring to the argument that Vogel does not include a mark that shows the sighting axis and that Vogel only discloses a mark that is the target of which the distance is measured to. The examiner would like to direct the applicants' attention to figure 7 and column 8 line 45-56. Vogel shows the sighting axis is directed at the target when the distance is being determined and while the mark is showing the target it is inherent that the mark was on the sighting axis when the image of the target was taken.

Referring to the argument that Huang does not disclose an on-board control unit or a display these items are not claimed in claim 29. As the applicant has pointed out the calculations are done off camera however according to the claim these calculations do not need to be done on the camera.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke D. Ratcliffe whose telephone number is (571)272-3110. The examiner can normally be reached on 10:00-5:00 M-Sun.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LDR

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662